

Teacher's Resource Book

Maths

Insight

2

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Introduction

Welcome to Maths Insight 2: Teacher's Resource Book!

This Teacher's Resource Book serves as a guide to making maths education an engaging and impactful experience for young learners. It is designed to complement the Maths Insight 2: Teacher's Resources Book, offering essential tools for effective teaching.

This **Maths Insight 2: Teacher's Resource Book** contains all the essentials for delivering engaging maths lessons. It includes lesson overviews that summarise each chapter, offering a clear structure for planning and reviewing lessons with ease. Detailed plans are included to achieve learning objectives and ensure that maths concepts are well understood by students. Answer keys for coursebook exercises are also provided to save preparation time and maintain consistency in evaluations. These resources work together to support the delivery of meaningful and enjoyable maths lessons.

We hope this Teacher's Resource Book becomes an essential companion throughout the teaching journey, offering the necessary support to create meaningful and enjoyable maths lessons. Suggestions and constructive feedback are always welcome to help us improve and make this series even better for educators and students.

— **The Publishers**

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Background Knowledge/Review

Students are aware about:

- a. reading and writing numbers up to 50.
- b. ones and tens and their use to write a number as $17 = 1 \text{ ten} + 7 \text{ ones}$.
- c. numbers just before a number, just after a number and a number between two numbers.
- d. arranging numbers in ascending or descending orders.

Objectives

After teaching this chapter, students will be able to:

- a. learn 20, 30, 40 and 50 and writing in tens and ones.
- b. learn counting beyond 50.
- c. learn writing of numbers coming after a number, coming just before a number and a number between two numbers.
- d. express a number in tens and ones with its name in words.
- e. order and compare numbers.
- f. think of social/moral value connected with numerical problems

Overview of the Chapter

- a. Learning of numbers and number names
- b. Ordering of numbers
- c. Developing the value concerned with environment.

Teaching/Learning Materials

Abacus, stars, number strips up to 50, bundles of 10 sticks, loose sticks, marbles.

Teaching/Learning Strategies/Activities

Ask students to recall the facts learnt earlier.

To teach Twenties, Thirties, Forties and Fifty, start with Ten. Tell them 10 articles make 1 tens, i.e., 1 ten = 10 ones.

Tell them 20 articles make 2 tens, i.e., 2 tens = 20 ones.

Tell them 30 articles make 3 tens, i.e., 3 tens = 30 ones.

Tell them 40 articles make 4 tens, i.e., 4 tens = 40 ones.

Tell them 50 articles make 5 tens, i.e., 5 tens = 50 ones.

Explain reading of numbers 10 as ten, 20 as twenty, 30 as thirty, 40 as forty and 50 as fifty in words.

Sum of 2 tens and 8 ones can be explained in many ways. You know well, but one of these may be as under.

Call two children. Give 15 marbles to one and 13 marbles to the other one.

Tell them to group in tens. First will group in 1 ten and 5 ones. Second one will group in 1 ten and 3 ones.

Now it appears 2 tens and 8 ones.

= 2 tens (Twenty) and 8 ones (Eight)

= Twenty Eight

This can be repeated with different number of marbles or sticks by all students and the sum should be loudly spoken to practice the number names.

To teach what comes just after a number, tell your students to add 1 (1 more) to the number, i.e., if it is asked what comes after 39, say them to add 1 to 39, i.e., $39 + 1$. Certainly they will say

$39 = 3 \text{ tens} + 9 \text{ ones}$.

If 1 one is added to it, it will become, $39 + 1 = 3 \text{ tens} + 9 \text{ ones} + 1 \text{ one}$

= 3 tens + 10 ones

= 3 tens + 1 ten

= 4 tens = 40

= Forty

Similarly, they can be taught number just before by removing 1 from the number.

To teach a number between two numbers, use number grid from 1 to 50 and remove all alternate numbers, i.e. 2, 4, 6, etc. and ask children to fill it. These are the numbers between two numbers.

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----|--|---|----|---|----|---|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | | 3 | | 5 | | 7 | | 9 | | 11 | | 13 | | 15 | | 17 | | 19 | | 21 | | 23 | | 25 |
| 26 | | | 29 | | 31 | | 33 | | 35 | | 37 | | 39 | | 41 | | 43 | | 45 | | 47 | | 49 | 50 |

Your children have learnt to compare 1-digit number. On the same pattern they can be taught to compare and arrange numbers in an increasing or decreasing order of 2-digit numbers. They are to be reminded that ascending order starts from the smallest number and descending order starts from the greatest number.

Evaluation and Assessment

To evaluate the understanding of facts by children, problems of Practice Makes Perfect can be used. Observing the mood and interest of the children, instant problems related to the facts scattered in the chapter may be composed and put to them for answer.

A good teacher uses oral questions and invites oral answers from his/her students to develop mental calculation ability and learning through play as well.

You can ask your children to frame questions for their friends. If it is done, it means, they have well understood the facts and your efforts have been successful and learning objectives fulfilled.

Thinking About Values deal with concern about environment.

So explain, what is environment? How is it useful for us? etc.

You can compose some other story also and give quotes like "Birds are indicators of the environment. If they are in trouble, we know we shall be soon in trouble." Roger Tory Peterson.

Hints to Some Selected Problems

Skill Builders: c. Edison's number = 32 [3 tens + 2 ones = 32]

Real-World Problem Solving:

1. c. Evergreen School

3. b. 38 42 47

2. b. Greenfield School